MEMORANDUM OF UNDERSTANDING

BETWEEN THE

WEST VIRGINIA OFFICE OF TECHNOLOGY

AND THE

WEST VIRGINIA DEPARTMENT

OF EDUCATION AND THE ARTS

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The West Virginia Office of Technology (OT) is responsible for delivery and support of statewide enterprise Information Technology (IT) infrastructure, including hardware, operating systems and communications. The West Virginia Department of Education and the Arts' (E&A's) IT staff is responsible for delivering and supporting agency-specific applications and databases. The purpose of this MOU is to align OT and E&A based on the above-stated responsibilities. This MOU is broken into four specific sections, as follows:

Section 1 – Introduction – Provides an Executive Overview and General Terms of this MOU.

Section 2 – Service Areas – Categorizes and defines the features and capabilities of service. Services are organized by Service Family. The service families in-scope for this MOU are the following: Platform, Telecommunication, Desktop, Messaging, Information Security, Technology Service Desk and Hosting;

Section 3 – Escalation Procedures – Specifies how OT will manage incidents and service requests to ensure the E&A's needs and expectations are met; and

Section 4 – Chargeback – Specifies how OT will bill back for services during the short-term transition in addition to what E&A may expect in the future.

1 INTRODUCTION

1.1 Agreeing Parties

For and between OT and E&A, this Memorandum of Understanding (MOU) is entered into this 16th day of August 2008.

1.2 Executive Overview

Pursuant to West Virginia Code §5A-6-1 *et seq.*, OT is responsible for the State's technical infrastructure and providing quality technology services. OT's intent is to standardize the State's technical infrastructure and consolidate employees currently distributed within various state agencies into a centrally managed technology infrastructure support organization. Once standardization and consolidation are complete, OT's customers should have the full expectation that their technology cost will decline; their satisfaction with support will increase; network and system availability and reliability will improve; and security risks will diminish. E&A employees currently performing technical infrastructure responsibilities will be transferred to OT to assist in achieving these goals unless otherwise specified in Section 1.5. Appendix 2 lists those employees expected to transfer to OT.

The purpose of this MOU is to promote service quality through the following: 1) defining services supported by OT, 2) organizing and documenting the roles and responsibilities performed to deliver services, 3) defining service level objectives, 4) identifying escalation and corrective action processes if service objectives are not met and 5) defining and agreeing on a short-term and long-term cost structure to provide such services.

1.3 Implementation Phases of the MOU

OT and E&A will reach an agreement on the framework for services, roles and responsibilities and the implementation of this framework into daily operations. Additionally, it is expected that E&A and OT will reach an agreement on service level objectives, measurement techniques, measurement period, escalation and resolution procedures and service charges. Upon execution of this MOU, OT will begin to develop baseline metrics for each of the agreed upon service level objectives. Service level objectives will be established in each of the following areas:

- E&A Customer Satisfaction
- Availability and Reliability of Service
- Responsiveness
- Financial Results
- Security/Vulnerability

Once baselines are established, OT will monitor actual performance and establish improvement goals against the baseline service level measures which will be reported back to E&A management. At a minimum, OT's report back to E&A management will include the following: 1) an itemized report of provisioned services, 2) services delivered per service levels and 3) ongoing performance reporting and evaluation against provisioned services.

The service level objectives will be reevaluated after one (1) year to adjust performance targets based on actual results achieved.

1.4 General Terms

2. The MOU is in effect for two (2) years, effective on this 16th day of August 2008, and will be mutually re-evaluated yearly to validate the quality and quantity of services and alignment of roles and responsibilities. The evaluations are initiated by OT's Director of Client Services or as requested by E&A management.
3. E&A will provide on-site OT personnel, adequate office space and furniture to perform its specific duties at no charge to OT. E&A will allow the furniture and equipment currently utilized by employees transferring to OT to remain with that employee until the end of the equipment's life at which time it will be returned to E&A for disposal. All equipment purchased by E&A will remain on the books as property of E&A, although it will be in use by OT employees.
4. OT will make reasonable efforts to assure that no E&A facility or data will be compromised by an OT employee who poses a threat to the safety of E&A employees or clients. As such, OT warrants that all OT employees used on E&A projects will have undergone a criminal background check.
5. OT is responsible for managing subcontractor's performance in delivering services and in performing roles within the scope and service level objectives of this MOU, including any portion of services or responsibilities by a third party provider. The transition to a third party provider does not alter the service level objectives defined in this MOU.
6. OT is responsible for providing training for its personnel to adequately perform its duties. E&A will provide training for business-specific knowledge, skills and abilities that E&A requires of OT employees.
7. Should E&A experience a decrease in business that directly results in a decrease in the demand for OT labor and services, OT agrees to decrease charges to E&A relative to services and labor provided. Conversely, should E&A experience an increase in business that directly results in an increase in the demand for OT services, OT shall appropriately increase charges to E&A. A shift in business demand is defined as new or expanded IT functionality or a two percent increase or decrease in one or more of the following areas:
    - total number of Personal Computers supported;
    - total number of phones supported;
    - total number of network IDs supported; and
    - increase in IT support business requirements.
8. Systems identified as critical or that require twenty-four-hour-a-day, seven days a week (24x7) support will have on-call support.
9. Critical services and processes are those activities that cannot be lost without jeopardizing the mission of E&A. Critical systems are identified via a Business Impact Analysis and identified in E&A's Continuity of Operations Plan (COOP). In the absence of E&A's COOP, OT will work with E&A to determine critical systems within the agency.

10. Service performance measurement and reporting conducted for E&A by OT are dependent upon the availability of measurement tools that currently exist at E&A or OT. Where proactive monitoring tools do not exist, Technology Service Desk Incident Reports will be used to calculate performance metrics.
11. Should E&A and OT mutually agree that additional metrics are necessary to more comprehensively measure service level performance, and data are available to provide such metrics, such metrics will be implemented by OT.

This MOU may be amended in whole or in part by mutual consent of the parties. Any modification shall be in writing and signed by an authorized representative of each party.

1.5 Exemptions

Educational Broadcasting is a classified exempt organization and will not be subject to IT consolidation. However, support responsibility for infrastructure applications and devices, specifically Active Directory, E-Mail and telephony will transfer to the OT. Educational Broadcasting will retain all current technology staff positions and will continue to be solely accountable for all its business applications and the hardware platforms on which it resides. Like all other organizations exempt from IT Consolidation, Educational Broadcasting will continue to be firewalled from the rest of the State's backbone network.

Technical infrastructure personnel housed within the Library Commission predominantly serve non-state entities and for the most part will not be subject to IT consolidation. However, they do support some technical state infrastructure applications and devices, specifically E-Mail and voice services. As a result, two positions will be transferred to OT, while all others will remain with the Library Commission. The Library Commission will retain current technology staff positions servicing public libraries and will continue to be solely accountable for the business applications, hardware platforms and networks needed to support the public libraries. All infrastructure need to support public libraries will continue to be firewalled from the rest of the State's backbone network.

2 SERVICE AREAS

2.1 OT Core Infrastructure Services

2.1.1 Platform Services

2.1.1.1 Service Definition

Platform Services provide high performance, high volume, high availability and security resources for a wide range of information technologies. These services are provided over a wide range of hardware and software operating systems.

The following are available within Platform Services:

- Server and Mainframe Backup and Recovery Services;
- Mainframe;
- Production Control;
- Print Services;
- Storage Services (Tape, Disk, etc.); and
- Server Support for Linux, Windows, UNIX.

Platform Services will provide the following key benefits:

- 24 x 7 operation including real-time monitoring and fault management;
- Standard server platform technologies;
- Data retention and data recovery of E&A critical data as defined by E&A (both on- and off-site storage);
- Secure and environmentally controlled data center environment;
- Automated production scheduling services;
- Systems monitoring, performance and capacity management software tools; and
- Network print services.

2.1.1.2 Service Level Objectives

DEFINITION	**General System Availability** is defined as the server CPU, system memory, disks and peripherals up to the connection to the network. Availability is for the server or server-cluster that provides a E&A-facing service and excludes scheduled maintenance.

PRE-SCHEDULED DOWNTIME REQUIREMENTS	All pre-scheduled system downtime and maintenance, unless otherwise agreed upon in advance by E&A, will occur as follows: • For the systems with 24x7 requirements, all pre-scheduled maintenance shall be performed based on OT's Change Management process and during agreed scheduled maintenance windows. • For systems having non-24x7 requirements, pre-scheduled maintenance shall be performed outside of the normal system availability timeframe.

General System Availability Service Level Requirements

System Platform	Service Measure	Performance Target	Minimum Performance %
Mainframe OS and Subsystems Mission Critical	Aggregate Availability	Sun-Sat, 00:00-24:00	99.90%
Windows Mission Critical	Aggregate Availability	Sun-Sat, 00:00-24:00	99.90%
Windows Others	Aggregate Availability	Sun-Sat, 00:00-24:00	98.00%
RISC/Unix Mission Critical	Aggregate Availability	Sun-Sat, 00:00-24:00	99.90%
RISC/Unix Others	Aggregate Availability	Sun-Sat, 00:00-24:00	98.00%
QA/Test Systems and Servers	Aggregate Availability	OT agrees to offer high availability services during normal business hours and other periods as agreed upon	N/A
Development Servers	Aggregate Availability	OT agrees to offer high availability services during normal business hours and other periods as agreed upon	N/A

Performance percentage will be calculated from available system uptime records of critical devices. As OT's problem management system and processes mature, the effect of the outage to E&A will be calculated through trouble tickets or incidents logged into OT's problem management system. The duration of every outage or service interruption will be captured. Service interruptions and outages will be reported back to E&A on a monthly basis. Minimum performance percentages will be calculated by summing up the total number of minutes that the service was not available by each platform, subtracting that from the total number of minutes the system platform should have been available, then dividing by the total number of minutes the system should have been available. For example, suppose the mainframe is expected to be available 24 hours a day, 7 days a week. Then, suppose the mainframe experienced a twenty-minute outage and another forty-minute outage later in the month. Performance percentage would be calculated by taking the number of minutes available in a day (1,440) multiplied by the number of days in a month. Assuming thirty days in the month, OT's total number of available minutes would be 43,200. OT would then sum the outages for the month (20 + 40). OT would then calculate performance percentages as (43,200 – 60)/43,200 which would equal 99.86%. In this case, OT would not meet its service level objective for that month. This process would be repeated for each severity level. In order for OT to guarantee such high minimum performance

levels, production hardware must be supported by the manufacturer and operating system software must not be more than two versions old.

2.1.2 Desktop Services

2.1.2.1 Service Definition

Desktop Services are a family of services that manage workstation hardware and software components that provide management of desktop computer technology and support for an organization's individual staff members. This includes onsite support for computers, associated peripherals, office and productivity applications, requests for network services and Personal Data Assistants (PDA).

The following support is available within the Desktop Services family:

- Desktop computing hardware devices, peripherals and associated Operating System (OS) Software;
- Laptop or notebook computing hardware devices, peripherals and associated OS Software;
- Management of in-scope software licenses;
- Business and office productivity software and client computing applications that are a part of standard approved computing device image(s);
- Network-attached printers, scanners, multi-functional devices (printer/scanner/fax/ copier) that are attached to the local-area network (LAN) and other peripherals;
- Wireless and handheld computing hardware devices and associated OS Software (e.g., smart phones, PDAs, handheld scanners);
- Best effort attempts to resolve issues with locally attached peripheral devices (e.g., personal printers, exclusive of consumables); and
- Refreshing of desktop and laptop computing hardware dependent on E&A funding

Desktop Services can provide the following key benefits:

- Statewide on-site technical support;
- Supported software license coordination or management;
- Standardized desktop and user computing environment (hardware and software);
- Improved security and reduce risk/vulnerabilities in the desktop/user computing environment;
- Improved asset management and control; and
- IT staff who have industry experience certifications in support of best practices

2.1.2.2 Service Level Objectives

Category	Business Day Hours
Desktop Support	Mon-Fri. 0730-1730 or as scheduled in advance of event
Enhanced Support	7x24 (as needed)

SERVICE DEFINITION	Desktop services are initiated by incident trouble tickets or service requests to repair, install, modify, relocate or remove any hardware or software included within the scope of desktop computing. Repair may include the replacement of the affected device subject to E&A funding. An Incident is defined as any event that is not part of the standard operation of a service and which causes, or may cause, an interruption to or a reduction in the quality of that service.

Repair, Install, relocate or remove

Request	Service Measure	Performance Target	Minimum Performance%
Service via Incident Trouble Ticket	Elapsed time	Sev 1 – two (2) business hours from time of receipt of Incident Trouble Ticket to contact by technician	90%
		Sev 2 – eight (8) business hours from time of receipt of Incident Trouble Ticket to contact by technician	90%
		Sev 3 – two (2) business days from time of receipt of Incident Trouble Ticket to contact by technician	90%
		Sev 4 – five (5) business days from time of receipt of Incident Trouble Ticket to contact by technician	90%
		Sev 5 – non-critical, will resolve as time allows. Will not be considered when calculating Service level obligations	N/A
Service via Service Request	Elapsed time	Five (5) business days from date of receipt of the request to identify next steps and plan resolution of service request	90%

Minimum performance will be calculated based on trouble tickets or incidents logged into OT's problem management system. Every ticket will be assigned a severity level based on customers' needs and expectations. The amount of time it takes an OT employee to respond to its customer once a problem is reported will be captured in OT's problem management system. Service response will be reported back to E&A on a monthly basis. Minimum performance percentages will be calculated by summing up the total number of tickets OT responded to for the customer within the defined severity level timeframe divided by the total number of tickets within that severity level. For example, suppose OT's customers report one hundred (100) severity level 2 calls to the help desk in a month. For severity level 2 calls, OT would then be expected to respond in eight hours or less. Then, suppose that, out of the one hundred (100) calls, ninety-two (92) were responded to in less than eight hours. OT would then calculate performance percentages as 92/100, which would equal 92%. In this case, OT would meet its service level objective for that severity level for that month. This process would be repeated for each severity level.

2.1.3 Messaging Services

2.1.3.1 Service Definition

"Messaging Services" are the services and activities required to provide and support the email infrastructure; interpersonal communications computing; and the infrastructure needed to support wireless connectivity, wireless communications and handheld devices.

"Messaging Services" are defined as all activities associated with the provision of Software and support of E&A's messaging environment that are capable of connecting to OT's Messaging Services infrastructure directly via Local-Area Network (LAN), through the Internet or via wireless connectivity.

OT provides and supports an agreed to and approved standard messaging infrastructure environment on the in-scope computing platforms, including desktops, laptops and handheld devices.

The following are available, or will soon be available, within the Messaging Services family:

- Email messaging support;
- Management of global distribution lists (DLs), mailboxes, generic mailboxes and E&A recipient addresses;
- Wireless messaging support (i.e., Blackberry, TREO, IPAQ) as defined in the supported hardware lists;
- Real-time collaboration, where implemented, support includes:
    - Secure instant messaging solutions;
    - Virtual team workspaces; and
    - Online meetings and application sharing;
- Instant Messaging;
- Data Conferencing;
- Mailbox Management;

- Secure encrypted messaging as required by E&A; and
- Messaging Security support that includes the following:
  - Content filtering for virus prevention and spam management; and
  - Perimeter security support to cover management of email traffic at the enterprise border.

Messaging Services can provide the following key benefits:

- Automated deployment or configuration of the most common end-user messaging applications;
- Automated virus and spam filtering to prevent viruses, worms and spam from entering the email system; and
- Tracking and management of messaging software licenses.

2.1.3.2 Service Availability Objectives

"Messaging service availability" is defined as the time during which the messaging environment is fully functioning; connectivity between the users and the messaging system and server(s) is established; and normal business operations can be carried out with no message or data loss, no downtime, or no disruptive performance degradation.

All scheduled maintenance shall be performed during OT-defined change management windows. E&A will receive advanced notification of all planned outages. Other additional component downtime will be managed during non-operational windows, if possible, based on the criticality of the situation.

MESSAGING SERVICES AVAILABILITY TABLE			
SERVICE TYPE	SERVICE MEASURE	PERFORMANCE TARGET	MINIMUM PERFORMANCE %
Messaging Service for Email Managed Environments	Ability of Service to Send and Receive Messages	Sun-Sat, 00:00-24:00	99%

Performance percentage will be calculated from available system uptime records of central email systems. As OT's problem management system and process mature, the customer effect of the outage will be calculated through trouble tickets or incidents logged into OT's problem management system. The duration of every email and messaging service outage will be captured. Outages will be reported back to E&A immediately. Minimum performance percentages will be calculated by summing up the total number of minutes that the email or messaging services were not available, subtracting that from the total number of minutes the email and messaging services should have been available, then dividing by the total number of minutes that email and messaging services should have been available. For example, suppose an email service is expected to be available 24 hours a day, 7 days a week. Then, suppose the email services experienced a forty-minute outage. Performance percentage would be calculated by taking the number of minutes available in a day (1,440) multiplied by the number of days in a month. Assuming thirty days in the month, the total number of available minutes would be 43,200. OT would then sum the outages for the month, in this case forty minutes. OT would then calculate

performance percentages as (43,200 – 40)/43,200 which would equal 99.90%. In this case, OT would meet its service level objective for that month. This process would be repeated for each email and messaging environment.

2.1.4 Telecommunication Services

"Telecommunication Services" is a category of services that includes the infrastructure to support secure and reliable data networks, voice networks and video services.

2.1.4.1 Network Services

Network Services supports the transmission of data across the statewide telecommunications network to accomplish the daily tasks of government. Network services are available via statewide contracts that provide an expanded infrastructure and a schedule of network service offerings that include engineering, provisioning and management that are available to E&A. Network services include, but are not limited to: Wide Area Networks (WAN), Local Area Networks (LAN), Metropolitan Area Networks (MAN), Internet Access, Virtual Private Networks (VPN), OT Data Center Access and Application Access, and Consulting and Engineering support.

The following support is available within the Network Services family:

- OT Data Center Access and Application Access;
- Provisioning of new or changed service requirements;
- Internet Access;
- Virtual Private Network;
- Standard WAN Equipment;
- WAN administration and design;
- MAN administration and design;
- LAN administration and design;
- LAN Equipment;
- Remote access;
- Cabling and wiring;
- Wireless Network Equipment;
- Wireless Network Administration
- Throughput and Bandwidth Management; and
- 24X7 Network Monitoring.

Network Services can provide the following key benefits:

- Statewide network coverage;
- Incident management to resolution including tracking, escalation and third-party dispatch;
- Knowledgeable and experienced staff for the data network services; and
- Plan, design and implementation of network expansion and optimization.

2.1.4.2 Video Services

Video Services makes up a category of services that provides access to video conferencing and video bridging. OT will be responsible to E&A to ensure video services are available and are of acceptable quality to E&A.

The following are available within the Video Services family:

- Video Bridging Equipment and End-user Support, and
- Video Conferencing and Recording.

Video Services can provide the following key benefits:

- Fully-equipped facilities;
- In-house solution to both services and procurement; and
- Knowledgeable and experienced staff for the video services.

2.1.4.3 Voice Services

Voice Services provide various communication tools to accomplish the daily tasks of government including wired and wireless voice services; long distance service; other voice services, such as ACD and IVR, Centrex or ISDN service; and engineering and consulting.

The following are available within the Voice Services family:

- Voice conferencing;
- Cellular Contract Management;
- Voice over Internet Protocol (VoIP);
- IP Telephony;
- Cabling and wiring support;
- ISDN & Key System Equipment and End User Support;
- Local and Long Distance Service;
- Other Voice Services, including ACD, IVR, Voicemail;
- Plan, design and implementation of voice expansion and optimization; and
- State Directory Service Application.

Voice Services can provide the following key benefits:

- Incident management to resolution including tracking, escalation and third-party dispatch, and
- Access to voice engineers.

2.1.4.4 Service Level Objectives

Network Availability Service Level Requirements			
Service Type	Service Measure	Performance Target	Minimum Performance %
Network	Availability	Sun-Sat, 00:00-24:00	99.00%
Voice	Availability	Sun-Sat, 00:00-24:00	99.00%
Video	Availability	Mon-Fri, 07:30-17:30	TBD
Internet Access	Availability	Sun-Sat, 00:00-24:00	TBD

Performance percentage will be calculated from available system uptime records of critical devices. As OT's problem management system and process mature, the customer effect of the outage will be calculated through trouble tickets or incidents logged into OT's problem management system. The duration of every outage or service interruption will be captured. Service interruptions and outages will be reported back to E&A on a monthly basis. Minimum performance percentages will be calculated by summing up the total number of minutes that the service was not available by each service type, subtracting that from the total number of minutes each service type should have been available, then dividing by the total number of minutes the service type should have been available. For example, suppose the voice network is expected to be available 24 hours a day, 7 days a week. Then, suppose the voice network experienced an eight hour outage. Performance percentage would be calculated by taking the number of minutes available in a day (1,440) multiplied by the number of days in a month. Assuming thirty days in the month, the total number of available minutes would be 43,200. OT would then total the outages for the month (8 hours times 60 minutes or 480 minutes). OT would then calculate performance percentages as (43,200 – 480)/43,200 which would equal 98.86%. In this case, OT would not meet its service level objective for that month. This process would be repeated for each service type.

IT Support Services

2.2.1 Information Security Services (ISS)

2.2.1.1 Service Definition

Information Security Services provide for protection, confidentiality and integrity of data while permitting authorized access. This is accomplished through activities that include risk assessment, security monitoring, anti-virus and anti-spam management, hard drive encryption, email encryption, secure data transport, internet filtering and firewall management. Security monitoring includes information security incident detection and prevention, incident identification, incident assessment, tracking, resolution and reporting. ISS also include the necessary security infrastructure, systems and records management processes.

The following are within the scope of ISS:

- Security advisories and alert services;
- Security policies, processes, standards and procedures;
- Risk and vulnerability assessment;
- Information security training and awareness;
- Security or breach incident management;

- Logical access control to the computing environment; and
- Plan, design and implementation of security and firewall expansion and optimization.

ISS can provide the following key benefits:

- Assistance in compliance with laws and regulations involving confidentiality;
- A secure environment in which to perform business activities; and
- The monitoring of intrusions and network "attacks."

2.2.1.2 Service Level Objectives

Security Administration Service Level Requirements			
Activity	**Service Measure**	**Performance Target**	**Performance Target**
Deploy service / security patches / anti-virus updates necessary to fix/repair environment vulnerabilities	Elapsed Time	Commence mitigation upon receipt for OT-directed HIGH risk vulnerability	95% of external facing assets
Reporting of detected security incident	Elapsed Time	Reported within 24 hours of detection or time detection should have occurred.	95%

Minimum performance will be calculated based on trouble tickets or incidents logged into OT's problem management system. The duration of a security-related issue will be captured. OT will report security-related issues to E&A immediately. Suppose a virus is undetected for 60 minutes. Performance percentage would be calculated by taking the number of minutes the virus was undetected and subtracting that by the total number of minutes available in a day (1,440). This number would then be divided by the total number of minutes available in a day. Performance percentages would be calculated as (1,440 – 60)/1,440 which would equal 95.83%. In this case, OT would meet its service level objective for that incident. This process would be repeated for each security related incident.

2.2.2 Physical Security Services

2.2.2.1 Service Definition

Physical Security Services provide for a secure environment for computing infrastructure. Physical Security is achieved through identifying security needs, establishing physical access controls, maintaining an authorized needs-to-enter access list and monitoring compliance of access activity to established standards and procedures.

The following are within the scope of Physical Security Services:

- Building security as relating to computer room and other key infrastructure components;
- Physical security policies, processes, standards and procedures for technical infrastructure; and
- Authorization or revocation of computer room access

2.2.3 Technology Service Desk

2.2.3.1 Service Definition

The Technology Service Desk manages the activities required to coordinate and respond to incidents (trouble tickets), dispatching service requests and requests for information. OT will provide end-to-end tracking which includes the following: logging, monitoring, recording resolution and validating closure. Every E&A call is logged, prioritized and either resolved on the initial call or dispatched to the appropriate technical resource for resolution. Ticket status is monitored throughout its life, and E&A is periodically provided verbal or written status updates.

The following are available within the Technology Service Desk family:

- Escalation parameters and contact lists;
- Point of contact for status;
- Routing of requests;
- Providing 1st level support for in-scope capabilities;
- Password resets for accessible systems;
- Recording Incidents; and
- Root cause analysis.

The Technology Service Desk can provide the following key benefits:

- Ownership of E&A's problems until resolved to its satisfaction (Note: Requests for new and/or enhanced services are not considered problems and will be submitted to the Project Management Office for prioritization);
- An understanding of E&A's business and the ability to get E&A back to work as quickly as possible when technology problems occur;
- The establishment and maintenance of positive, long-term E&A relationships through open communication and continuous feedback;
- The provision of high-level E&A service and technical expertise; and
- A rapid and positive response to all E&A inquiries.

2.2.3.2 Service Level Objectives

Response Time is the number of seconds or cycles it takes E&A to connect with OT's Technology Service Desk representative.

Response Time Service Level Requirements			
Technology Service Desk Responsiveness	**Service Measure**	**Performance Target**	**Minimum Performance %**
Average Speed to Answer	Phone response time	Mon-Fri 07:30-17:30	≤ 30 sec
Average Time on Hold	Phone response time	Mon-Fri 07:30-17:30	≤ 90 sec
Call Abandonment Rate	Phone response time	Mon-Fri 07:30-17:30	< 5%
Deliver as Promised	Physical Time	Mon-Fri 07:30-17:30	90% of customers are responded to within the time frames defined within the assigned Sev code
	Online response time	Mon-Fri 07:30-17:30	≤ 1 hour
Voicemail Response	Voicemail response time	Mon-Fri 07:30-17:30	≤30 minutes
Password	Elapsed time	10 minutes to reset user password to systems that the Technology Service Desk has reset privileges	95%
First Call Resolution	Calls related to trouble tickets resolved during initial phone contact	% of calls resolved that have the potential of being resolved at Level 1	70%

Minimum performance for Average Speed to Answer, Average Time-on-Hold, Call Abandonment Rate and Voicemail Response Rate will be based on averages pulled directly from OT's phone system.

Minimum performance for Delivered as Promised, Email Ticket Response, Password Reset and First Call Resolution will be calculated based on trouble tickets or incidents logged into OT's problem management system. The duration of every outage or service interruption will be captured. Minimum performance percentages will be calculated by summing the total number of tickets by each service type meeting the performance target and dividing by the total number of tickets entered for each service type. For example, performance percentage for password resets would be calculated by taking the number of password reset tickets created in a given month resolved in 10 minutes or less, divided by the total number of password reset tickets entered for that month. Assume that the Service Desk received 140 password reset requests during a given month and that 132 of these requests were resolved in 10 minutes or less. OT would calculate performance percentages as 132/140 which would equal 94.2%. In this case, OT would not meet its service level objective for that month. Similar processes would be repeated for each service type.

The Service Desk is responsible for the prioritization of all requests and the assurance that service level obligations are met. If E&A employees bypass the Service Desk and contact OT personnel directly for support, those requests may be entered into the system as low priority. This is necessary in order to avoid conflicts with the Service Desk prioritization process.

Satisfaction with OT will be determined by nightly, random surveys of closed trouble tickets. These surveys will be conducted by OT and the results reviewed by E&A. If overall E&A customer satisfaction drops below 90%, OT will negotiate corrective action with E&A and will implement a corrective plan.

2.2.4 Hardware Hosting Services

2.2.4.1 Service Definition

OT will be playing the role of an internal Hardware Service Provider. In this role, OT will host and manage the infrastructure required to support business applications and will coordinate the support, maintenance, upgrades and administration of software with E&A IT Application Development group, similar to the way OT manages the mainframe today. The E&A IT Application Development group will be responsible for business application support including requirements definition, systems design, maintenance and system performance. The location of the technology implemented or the specific components used should not be of concern as long as all defined requirements are fully met. Systems will be centralized and consolidated where practical and distributed where required. Through the hosting model, OT will combine hardware, software, networking technologies and technical expertise to provide superior performance, increased security and 24/7 availability as effectively and affordably as possible.

3 ESCALATION

3.1 Problem Ticket Escalation Process

Operational incidents properly submitted to the Technology Service Desk are automatically escalated in accordance with the following practice:

Contact	1st Escalation	2nd Escalation	3rd Escalation	4th Escalation
Technology Service Desk	Technology Service Desk supervisor	Technology Service Desk Manager	Client Services Director	CTO Chief Technology Officer
Severity				
1 Critical	Escalate 30 minutes before obligation due	Escalate once service obligation not met	Escalate after 2 hours	Escalate after 8 hours
2 High	Escalate 60 minutes before obligation due	Escalate once service obligation not met	Escalate after 8 hours	Escalate after 16 hours
3 Important	Escalate 4 hours before obligation due	Escalate once service obligation not met	Escalate after 2 days	Escalate after 4 days
4 Low	Escalate 1 day before obligation due	Escalate once service obligation not met	Escalate after 5 days	Escalate after 10 days
5 As Time Allows	N/A	N/A	N/A	N/A

3.2 Determining Criticality of Outage by Location

Value will be maximized through the centralization, integration, consolidation and standardization of technology assets across the state. OT will focus on providing varying service levels to the E&A based on a tiered approach developed using the following criteria:

- Number of employees or technology devices at or supported through a site, and
- Business impact of an outage at a particular location.

By implementing a tiered approach, OT will focus on areas of E&A that present the greatest impact to the organization. Based on the tiered approach, OT personnel will be assigned to the highest impact locations across the state to maximize support of the business. These locations will experience a higher relative level of system availability, reliability and service.

High impact (Tier 1) locations meet one or more of the following criteria:

- Has 75 or more employees and/or technical devices supported by OT at that site;
- Serves as a primary Call Center for E&A; or
- Is actively involved with emergency response.

This approach could result in lower levels of service at smaller locations that do not meet the above criteria.

	Facility Type	Support Type
Tier 1	**E&A sites > 75 employees or PCs**	Outage Support: will be located on-site or within 30 minutes from the site On Call: 24x7 Outage: Dispatch immediate with response < 2 hours
Tier 2*	**Manned sites > 25 employees**	Outage Support: within 60 minutes from the site On Call: 24x5 – Emergency 24x7 Outage: Dispatch immediate response < 24 hours
Tier 3*	**Manned sites < 25 employees**	Support: within 90 minutes from the site On Call: None Outage: Dispatch Next Business Day Response < 4 business days

*OT will escalate dispatch to a site at the request of E&A management.

4 CHARGEBACK

Reassigned employees will report to OT effective August16, 2008. The salaries and employee benefits costs associated with these employees along with the personal services spending authority will be established under OT authority on this date. OT would anticipate an increase in its personal services budgeted activity 001 and the employee benefits activity 010. E&A would expect a resulting decrease in their budgeted activity items 001 and 010 and an increase in unclassified expenses 099.

The billing methodology for the entities formerly known as the Governor's Office of Technology (GOT) and WVNET will remain unchanged. OT infrastructure labor charges will change to a rate based upon labor and other variables discussed below. All other OT services will continue to be billed under the established rate structure in effect at the present time. The expectations for all billing methodologies are based on the following guiding principles:

- Rates must be equitable;
- Rates must be reasonable and competitive; and
- Compliance requirements related to the State's IT practices, such as legal licenses for all software, must be met.

The labor rate for E&A employees who are transferred to OT (Appendix 2) will be derived from their loaded salary on the effective date of their transfer and invoiced as described in the invoicing section below. Loaded cost includes salary (001), increment (004), administrative fees (010), Social Security matching (011), insurance (012), and retirement (016) costs. Other miscellaneous expenses such as the 1% PEIA reserve transfer, any applicable BRIM insurance premiums, travel, cellular charges and training will be direct billed to the agency on a monthly basis at cost. In addition, any contracts in place that utilize IT vendors as supplemental staff will be added to the bundled labor rate as those contracts end and OT assumes responsibility for those services. This approach will transition from the current interim labor rate direct-bill approach to a tentative provisional labor rate approach which will be adjusted to actual costs (as discussed in the second paragraph of the transitioning from interim rates section below) and then to rates for specific shared and bundled services.

The hardware and software maintenance contracts will continue to be paid by the cost center currently making payments. Microsoft Enterprise Licensing will be managed by OT and will be billed through future PC support rates. The decision of which hardware and software maintenance contracts are transferred to OT will be made on a case-by-case basis in the future.

E&A will be responsible for all utilities, rent, floor space and ancillary supplies for all personnel transferred to OT but remaining at a E&A location.

Invoicing

OT utilizes the Internal Service Fund financial model, which permits OT to recover the costs of the service that it provides by charging for the usage of that service in a manner similar to a private enterprise but without the profit motivation.

Invoicing for the interim labor rate, documented in the section above, will be in the form of a standard invoice with attached supporting documentation for amounts paid. The salary and benefits amounts will be based upon the actual payroll of E&A employees transferred and listed in Appendix 2. These invoices will be issued immediately following the end of the pay period dates such as the 15th, 16th or 30th, 31st of every month. The summary page of the invoice serves as the invoice to allow Inter-Governmental Transfers (IGT), which E&A will utilize to process its payment to OT using the state's accounting system WVFIMS. E&A may submit any billing inquiries or requests for billing adjustment to OT by notifying the contact individual on the invoice. Invoices should be paid under the 027 object code.

Transitioning from Interim Rates

The proposed interim labor rate approach will likely apply through the end of the first quarter of fiscal year 2009, but could be sustained as a viable charging mechanism for an indefinite period of time as OT migrates towards a transformed organization. As transformation occurs, the pool of expenses charged under the labor rate approach will gradually give way to rates for specific shared and bundled services. Bundled services have the potential of including direct labor, contracts, hardware, software and other direct costs required by OT to provide technology service delivery for the desktop and associated centralized services. Those services not utilized by all customers are not in the bundled approach.

Upon completion of the interim period, historical data gathered will be utilized to determine and calculate a "true-up" to actual expenses used. In the event the interim period extends beyond the first quarter of fiscal year 2009, the next scheduled true-up would be June 30, 2009, and on every fiscal year thereafter. This historical data will consist of a number of trouble tickets generated and hours incurred in support of the trouble tickets generated. The true-up will consist of a comparison of the cost billed per month over the interim period to actual costs rendered. These actual costs rendered could include charges for hours worked by employees from other agencies not included in the listing of E&A employees in Appendix 2. All direct charges and overhead costs incurred, such as annual and sick leave time, training and administrative time, will be allocated based upon the jobs or projects worked during the period analyzed in the comparison.

As cost savings are identified, the costs to agencies will decrease on a case-by-case basis. For example, if servers in a building were consolidated in one location, the lowered direct costs of doing so would be proportionally shared among the users of those servers. In another example, if OT negotiates a lower rate for anti-virus software, then all agencies will benefit.

Under such an incremental change scenario, as further cost savings and service improvements are attained that impact more agencies, service levels will tend to become more consistent across all agencies. Such a trend will make a future change to standard statewide rates much easier than what could be achieved today, given the current state of widely disparate IT environments and service levels.

It is OT's goal to transition and consolidate all in-scope agencies and migrate to the bundled services billing approach. OT's cost allocation methodologies will be invoked to support a shared services model among multiple agencies. The methodology will be applied individually to each prospective service, with both direct and indirect costs identified.

SIGNATORIES

Department of Education and the Arts

Accepted by: _____ Date: 7/18/08

Printed Name: Kay Goodwin, Cabinet Secretary

Office of Technology

Accepted by: _____ Date: 7/17/08

Printed Name: Kyle D. Schafer, Chief Technology Officer

Department of Administration

Accepted by: _____ Date: 7/18/08

Printed Name: Robert W. Ferguson, Jr., Cabinet Secretary

APPENDIX 1 - AGENCY CONTACTS

Each agency shall designate a contact person or persons for each of the activities described in this MOU. The contact information shall include name, title, mailing and physical address, telephone number, email address, fax number and a designation of which activities the person is designated to handle.

OT designates the individual(s) below to provide regular information to E&A:

For inquiries associated with performance measures, contact:
Kyle Schafer, CTO
304-558-8101
kyle.d.schafer@wv.gov

For inquiries associated with finances or chargeback, contact:
Bryan Hoffman, Administrative Services Manager/Finances
304-558-8108
bryan.m.hoffman@wv.gov

For inquiries associated with Information Security or Physical Security, contact:
Jim Richards, Director of IT Security
304-558-8107
jim.a.richards@wv.gov

For inquiries associated with Telecommunications, contact:
John Dunlap, Interim Director of Operations/Infrastructure
304-558-8145
John.d.dunlap@wv.gov

For inquiries associated with Messaging Services, contact:
Jennifer McCarty, Director of Information Services
304-558-8106
jennifer.l.mccarty@wv.gov

For inquiries associated with Platform Services, Desktop Services, Technology Service Desk or Hosting Services, contact:
Kathy Moore, Director of Client Services Delivery
304-558-8109
kathy.a.moore@wv.gov

All of the above-mentioned employees are located at the following address:

WV State Office of Technology
One Davis Square
321 Capitol Street
Charleston, West Virginia 25301

E&A designates the individual(s) below to provide regular information to the OT:

APPENDIX 2
2.1 Education and the Arts Employees Transferring to OT

0433	LIBRARY COMMISSION
Employee Name	**Title**
Library Commission	
BARTLEY, DWAYNE	INFO SYS COORD I

0432	CULTURE & HISTORY DIVISION OF
Employee Name	**Title**
LEWIS, LAURIE E	INFO SYS SPEC II

0932	REHABILITATION SERVICES
Employee Name	**Title**
AMOS, DONNA LEE	INFO SYS COORD I
BREEDLOVE, KELLY L	INFO SYS COORD I
OWENS, REBECCA S	INFO SYS COORD I
WHETZEL, REBECCA L	INFO SYS COORD I
MORGAN, JANICE B	INFO SYS SPEC II
CAIN, JON	INFO SYS SPEC II
KIRKPATRICK, JOHN	INFO SYS SPEC III
SUTTERS, LARRY EDWARD	INFO SYS SPEC III

2.2 Education and the Arts IT- Related expenses by Year/Division

Agency or Department	Data	App Labor	Billed	Contract	Direct	Infra Labor	Maint	Telecom	Grand Total
CULTURE & HISTORY DIVISION OF	Sum of 2004	$42,828.00	$14,074.84	$50,172.50	$87,659.41	$110,734.52	$1,803.72		$307,072.99
	Sum of 2005	$42,828.00	$20,124.31	$265,211.50	$113,837.48	$110,734.52	$542.25	$27,065.64	$580,343.70
	Sum of 2006	$42,828.00	$15,636.10	$1,025.00	$52,838.07	$110,734.52	$0.00	$24,768.03	$247,849.72
EDUCATIONAL BROADCASTING HEADQUART	Sum of 2004		$11,083.56	$23,514.74	$281,310.87	$289,412.72	$0.00		$605,321.89
	Sum of 2005		$14,630.47	$18,647.13	$95,586.92	$289,412.72	$5,525.55	$171,514.51	$595,317.30
	Sum of 2006		$11,347.94		$122,046.50	$289,412.72	$778.50	$129,747.31	$553,332.97
LIBRARY COMMISSION	Sum of 2004		$48,013.03	$9,523.00	$738,570.58	$574,816.32	$300.00		$1,371,222.93
	Sum of 2005		$62,903.99	$7,704.00	$1,138,909.87	$574,816.32	$600.00	$44,068.75	$1,829,002.93
	Sum of 2006		$71,450.30	$4,110.00	$792,602.90	$574,816.32	$0.00	$16,196.68	$1,459,176.20
PUBLIC RADIO	Sum of 2004								
	Sum of 2005								
	Sum of 2006							$11,097.58	$11,097.58
REHABILITATION SERVICES	Sum of 2004	$320,292.96	$126,160.08	$108,440.96	$1,025,279.02	$1,071,969.64	$20,705.55		$2,673,848.21
	Sum of 2005	$320,292.96	$235,350.78	$52,183.44	$327,141.96	$1,071,969.64	$9,936.94	$306,010.83	$2,321,886.55
	Sum of 2006	$320,292.96	$216,292.73	$26,901.59	$134,846.13	$1,071,969.64	$38,851.97	$414,238.73	$2,223,393.75
SECRETARY'S OFFICE	Sum of 2004					$51,610.32			$51,610.32
	Sum of 2005					$51,610.32			$51,610.32
	Sum of 2006					$51,610.32			$51,610.32
WSWP TV	Sum of 2004		$1,881.34		$3,686.11				$5,567.45
	Sum of 2005		$866.67		$7,873.99				$8,740.66
	Sum of 2006		$0.00		$128.35				$128.35
WV COUNCIL FOR COMMUNITY & TECHNICA	Sum of 2004		$0.00						$0.00
	Sum of 2005		$1,579.77					$945.31	$2,525.08
	Sum of 2006		$2,070.63					$2,557.16	$4,627.79
WV DEPARTMENT OF EDUCATION & THE AR	Sum of 2004		$21,080.65	$250.00	$447,037.89				$468,378.74
	Sum of 2005		$19,028.68		$159,263.54			$7,323.27	$185,615.49
	Sum of 2006		$252,299.62	$1,432.50	$107,006.28			$13,194.04	$373,932.44
Total Sum of 2004		$363,120.96	$222,303.70	$192,901.20	$2,583,543.88	$2,098,543.52	$22,609.27		$5,483,022.53
Total Sum of 2005		$363,120.96	$354,484.67	$343,746.07	$1,832,613.76	$2,098,543.52	$16,604.74	$556,928.31	$5,565,042.03
Total Sum of 2006		$363,120.96	$569,097.32	$33,469.09	$1,209,468.23	$2,098,543.52	$39,630.47	$611,819.53	$4,925,149.12

2.3 Contract/Professional Services

TMC TECHNOLOGIES INC	$50,172.50	$265,211.50	$1,025.00	$316,409.00
AT&T	$8.59			$8.59
BREWER & CO OF WV INC			$412.50	$412.50
CAPITOL BUSINESS INTERIORS	$150.00			$150.00
COMPUTER CARE INC	$1,575.63			$1,575.63
DELL GINETTE	$100.00			$100.00
DESIGNED TELECOMMUNICATIONS INC			$1,357.50	$1,357.50
EXECUTIVE INFORMATION SYSTEMS LLC		$10,756.00		$10,756.00
HEWLETT PACKARD	$25,931.07	$34,705.66	$20,368.00	$81,004.73
MANPOWER TEMPORARY SERVICES INC	$92,967.50	$14,425.78	$10,231.09	$117,624.37
NATL EDUC TELECOMM ASSOC	$21,939.11	$18,647.13		$40,586.24
TERRADON COMMUNICATIONS GROUP LLC			$75.00	$75.00
VERIZON	$56.80			$56.80
Grand Total	$192,901.20	$343,746.07	$33,469.09	$570,116.36

2.4 Server Counts by Location

Count of loc_city	
loc_city	Total
	9
Beckley	4
Charleston	10
Clarksburg	2
Elkins	1
Fairmont	1
Fayetteville	1
Huntington	1
Institute	24
Institute	1
Keyser	1
Lewisburg	1
Logan	1
Martinsburg	4
Morgantown	5
Mullens	1
Parkersburg	1
Princeton	1
Pt. Pleasant	1
Romney	1
Sistersville	1
Spencer	1
Summersville	1
Weirton	1
Welch	1
Wheeling	2
Grand Total	78

2.5 Employees By Location (based on WV On-line Telephone Directory)

City	Agency	Total
BECKLEY	EDUCATIONAL BROADCASTING AUTHORITY	30
	LIBRARY COMMISSION	2
	REHABILITATION SERVICES	15
CHARLESTON	CULTURE & HISTORY, DIVISION OF	91
	EDUCATION AND THE ARTS, DEPARTMENT OF	11
	EDUCATIONAL BROADCASTING AUTHORITY	46
	LIBRARY COMMISSION	43
	REHABILITATION SERVICES	106
CLARKSBURG	LIBRARY COMMISSION	2
	REHABILITATION SERVICES	107
CLIFFTOP	CULTURE & HISTORY, DIVISION OF	3
DANESE	CULTURE & HISTORY, DIVISION OF	2
ELKINS	REHABILITATION SERVICES	7
FAIRMONT	REHABILITATION SERVICES	3
FAYETTEVILLE	REHABILITATION SERVICES	5
HUNTINGTON	CULTURE & HISTORY, DIVISION OF	1
	EDUCATIONAL BROADCASTING AUTHORITY	2
	REHABILITATION SERVICES	26
INSTITUTE	REHABILITATION SERVICES	367
KEYSER	REHABILITATION SERVICES	6
LEWISBURG	REHABILITATION SERVICES	11
LOGAN	REHABILITATION SERVICES	7
MALDEN	CULTURE & HISTORY, DIVISION OF	1
MARTINSBURG	REHABILITATION SERVICES	11
MOOREFIELD	REHABILITATION SERVICES	2
MORGANTOWN	EDUCATIONAL BROADCASTING AUTHORITY	20
	REHABILITATION SERVICES	10
MOUNDSVILLE	CULTURE & HISTORY, DIVISION OF	5
MULLENS	REHABILITATION SERVICES	2
ONA	REHABILITATION SERVICES	1
PARKERSBURG	REHABILITATION SERVICES	9
POINT PLEASANT	REHABILITATION SERVICES	3
PRINCETON	REHABILITATION SERVICES	9
ROMNEY	REHABILITATION SERVICES	4
RUPERT	CULTURE & HISTORY, DIVISION OF	1
SHEPHERDSTOWN	EDUCATIONAL BROADCASTING AUTHORITY	1
SISTERSVILLE	REHABILITATION SERVICES	4
SPENCER	REHABILITATION SERVICES	2
SUMMERSVILLE	REHABILITATION SERVICES	8
WEIRTON	REHABILITATION SERVICES	7
WELCH	REHABILITATION SERVICES	6
WESTON	REHABILITATION SERVICES	3
WHEELING	CULTURE & HISTORY, DIVISION OF	4
	REHABILITATION SERVICES	16
Grand Total		1022